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PAPER NUMBER

FILING DATE APPLICATION NO. FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 09/554,708 07/31/2000 LIT-PI-099 DANIEL M. GINOSAR 5703 7590 04/03/2002 W GARY GOODSON **EXAMINER BECHTEL BWXT IDAHO** MEDLEY, MARGARET B PO BOX 1625 IDAHO FALLS, ID 83415-3899

DATE MAILED: 04/03/2002

1714

ART UNIT

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)		, ()
09/554 108	GING	SAR UT	w
Examiner		Group Art Unit	
MEIKEY		1114	<u></u>

-The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address-

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .

Status a / // 07					
Responsive to communication(s) filed on $0/-4/-0$					
☐ This action is FINAL.					
 Since this application is in condition for allowance except for formal accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 	•				
Disp sition f Claims					
χ Claim(s) $16-29$	is/are pending in the application.				
Of the above claim(s)	is/are withdrawn from consideration.				
□ Claim(s)	is/are allowed.				
□ Claim(s) /6-29	is/are rejected.				
□ Claim(s)	is/are objected to.				
☐ Claim(s)	are subject to restriction or election				
	requirement.				
Application Pap rs					
□ See the attached Notice of Draftsperson's Patent Drawing Review, F					
☐ The proposed drawing correction, filed on is ☐ approved ☐ disapproved.					
☐ The drawing(s) filed on is/are objected to by th	e Examiner.				
☐ The specification is objected to by the Examiner.					
☐ The oath or declaration is objected to by the Examiner.					
Pri rity und r 35 U.S.C. § 119 (a)-(d)					
111 Tity and 1 00 0.0.0. 3 110 (a)					
 □ Acknowledgment is made of a claim for foreign priority under 35 U.S □ All □ Some* □ None of the CERTIFIED copies of the priority □ received. □ received in Application No. (Series Code/Serial Number) □ received in this national stage application from the International B 	documents have been				
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U. S. Patent and Trademark Office PTO-326 (Rev. 9-97)

Part of Paper No.

Application/Control Number: 09/554,708

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The request filed on January 4, 2002 for a Request For Continued Examination (RCE) under 37 CFR Section 1.114 based on Parent Application No. 09/554,708 is acceptable and a RCE has been established. An action on the RCE follows.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16 (and its dependent claims) 28 and 29 are indefinite for step (3) dissolving either a C-1-C4 short chain alcohol or water into the critical fluid" because the previous steps do not provide for the alcohol nor water. Claim 29 is indefinite for the last three lines "is one selected ... pressure" which does not coincide with the limitation provided in the last paragraph on page 7; and because the previous part of the claims does not provide for any "co-solvent" for the critical pressure to be based upon.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein Art Unit: 1714

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. (Johnson) 5,520,708, combined with Stern et al., 4,695,411 or Bradin 5,578,090 in view of JP 09,156,684A Abstract and JP63, 112,536A.

Johnson et al teach and disclose processes for producing alkyl esters by reacting glyceride or free fatty acid containing substance with an alcohol or water into the presence of a catalyst and the separation of said ester from said glycerol, note column 3, line 15 to column 4, lines 1-4 and Examples 1, 2 and 5. Bradin teachings are incorporated in Johnson et al '708 and provide teachings for tranesterification with basic catalysts, note column 2-6 and Examples 1-12.

Stern

Bradin teaches and discloses conventional known methods for preparing fatty acid alkyl ester including tranesterifying triglycerides with alcohols in the presences of an acid or base catalyst, note column 3, lines 22 to column 4, lines 1-19.

Applicants claimed process differs from that of the prior art in that the instant claimed process also comprises a critical fluid, and a step for recycling said fluid for reuse in said process. It is the Examiner's position that the inclusion of a critical fluid in the process of the primary reference would be obvious in view of JP'684 and '536 Abstracts with teaching for purification of fatty acids and fatty acid esters separation by

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using critical fluid solvents e.g. CO_2 , flone, methane, ethane, low alcohol and C_{5-6} saturated hydrocarbons. Claim 25 recycle step is a conventional process step that does not make a conventional process obvious because recycle steps are conventional used to reduce costs and to prevent or to avoid waste disposal steps and costs. It would be obvious to one of ordinary skill in the art to add the critical fluids of the secondary references and to include a conventional recycle step for the critical fluids in the primary reference to aid in the purification of the tranesterification esters and the glycerol separation step and to reduce cost and avoid waste disposal of the recycle critical fluids. The claims as drafted do not distinguish over the relied on prior art of record.

Applicant's arguments filed January 4, 2002 have been fully considered but they are not persuasive.

The previous 112 rejections are with drawn in view of Applicant's cancellation of claims and arguments made of record.

In response to applicant's argument that the secondary references teach solubility phenomena alone and do not teach any advantages of a critical fluid as a reaction medium, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

It is the examiner's position that the adding of the secondary reference's critical fluid in the reaction steps vs. the adding during the separation steps would be obvious

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to the artisan working in the art in the absent of evidence of record as to the advantages of any improvement. A review of the instant application indicates that the critical fluid is merely added as a separation medium to separate the glycerol product as taught by the secondary references.

The references applied were cited in the previous Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret B. Medley whose telephone number is (703) 308-2518. The examiner can normally be reached on Monday-Friday from 7:30 a.m. to 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (703) 308-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M.B. Medley/dh March 25, 2002 MARGARET MEDLEY
PRIMARY EXAMINER